



Improving Access to NCD C's Operational CDR Datasets

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Outline

- Update of CDR user interactions over past year
- Identification of user issues and/or concerns
 - Largely accomplished through IMPACT demos
- Response to Number 1 recurring issue;
 - Data Access

Domestic User Communities

- American Association of State Climatologists
- Department of the Interior's Climate Science Centers
- USGS
- NASA
- UCAR/NCAR
- National Integrated Drought Information System
- National Climate Assessment and USGCRP
- NSF's NEON



Domestic User Communities (cont.)

- USDA (Climate Hubs)
- FEMA
- NOAA Centers and Partners:
 - Regional Climate Services Directors
 - Regional Climate Centers
 - Applied Climate Information System (ACIS)
 - Regional Integrated Science and Assessment
 - National Marine Protected Areas
 - National Weather Service
 - Fisheries and Coastal Services
 - Coral Reef Program



International User Communities

- Committee for Earth Observation Satellites
- Global Climate Observation System
- SCOPE-CM

Biggest Problem:

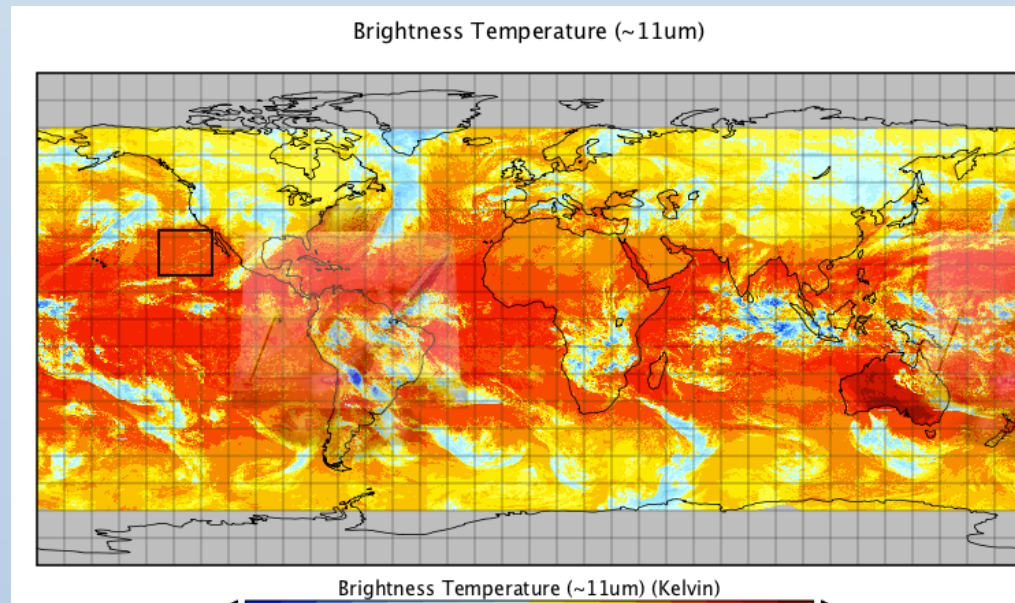


LARGE DATA ACCESS

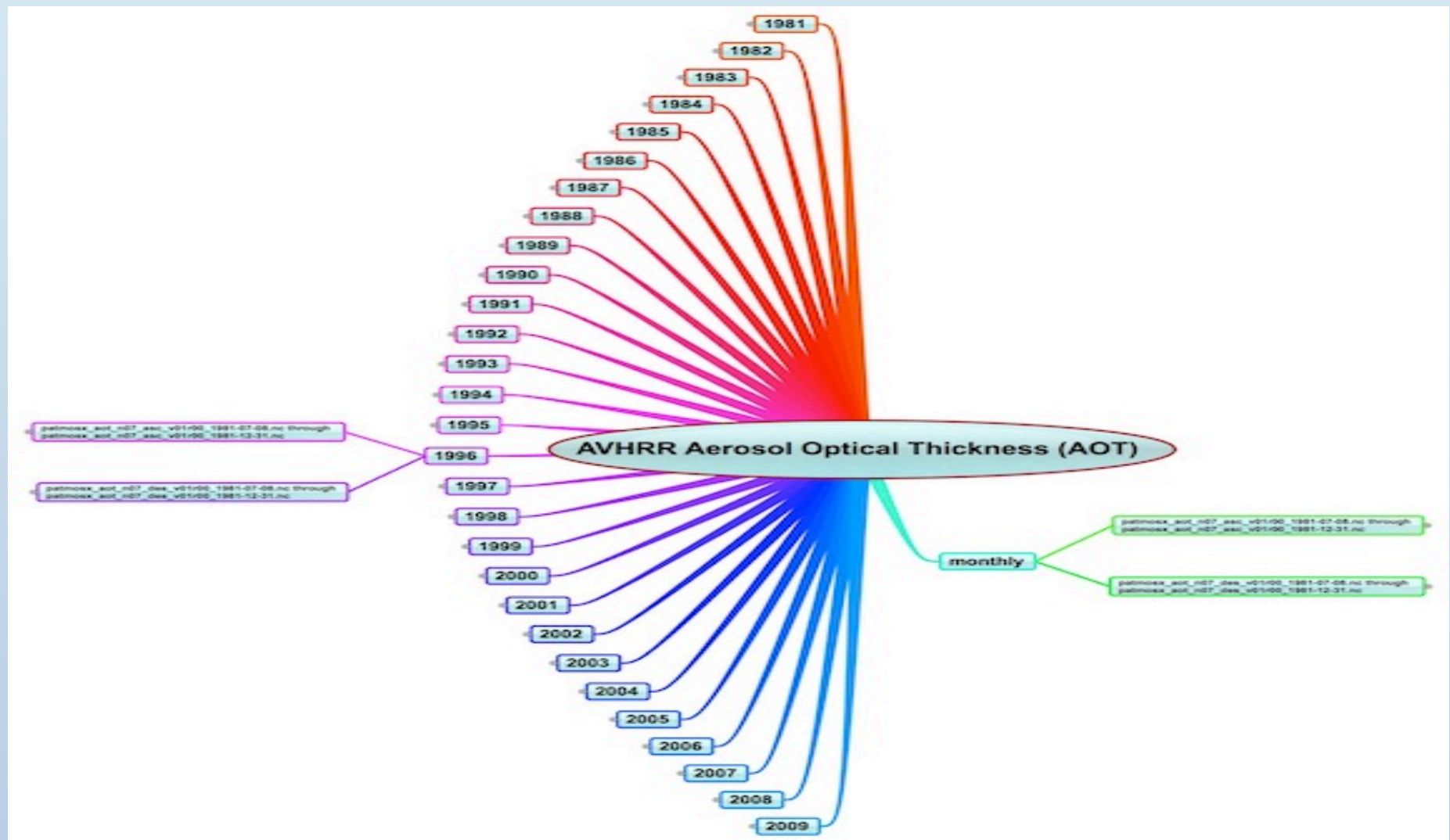
Priority One – Data Access

- Consistent Data Access
- Data Structure Layout hidden from the user

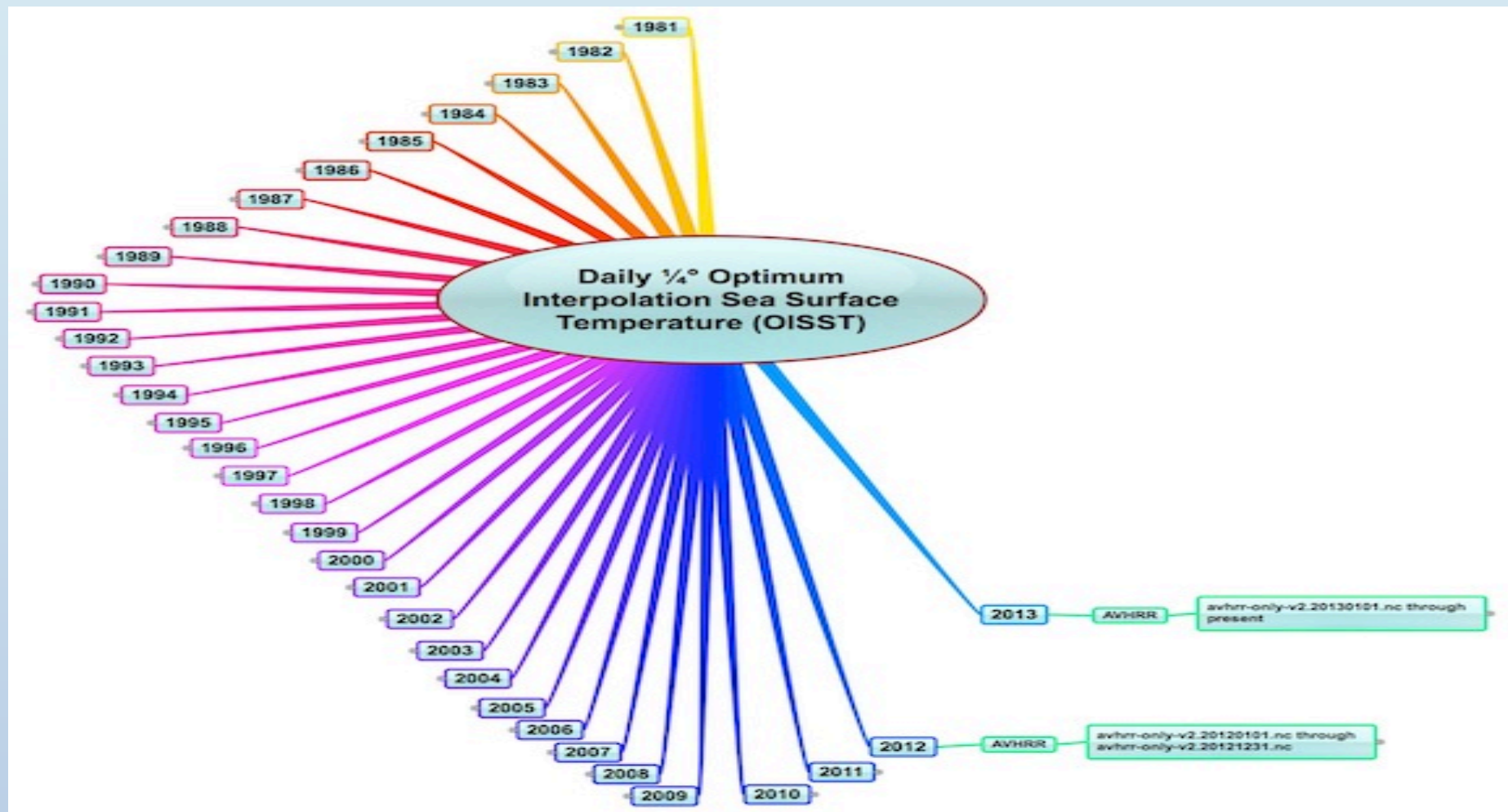
Values = CDR_Variable[Geographical_Grid, Time_Frame];



Aerosol Optical Thickness



Sea Surface Temperature – Optimum Interpolation



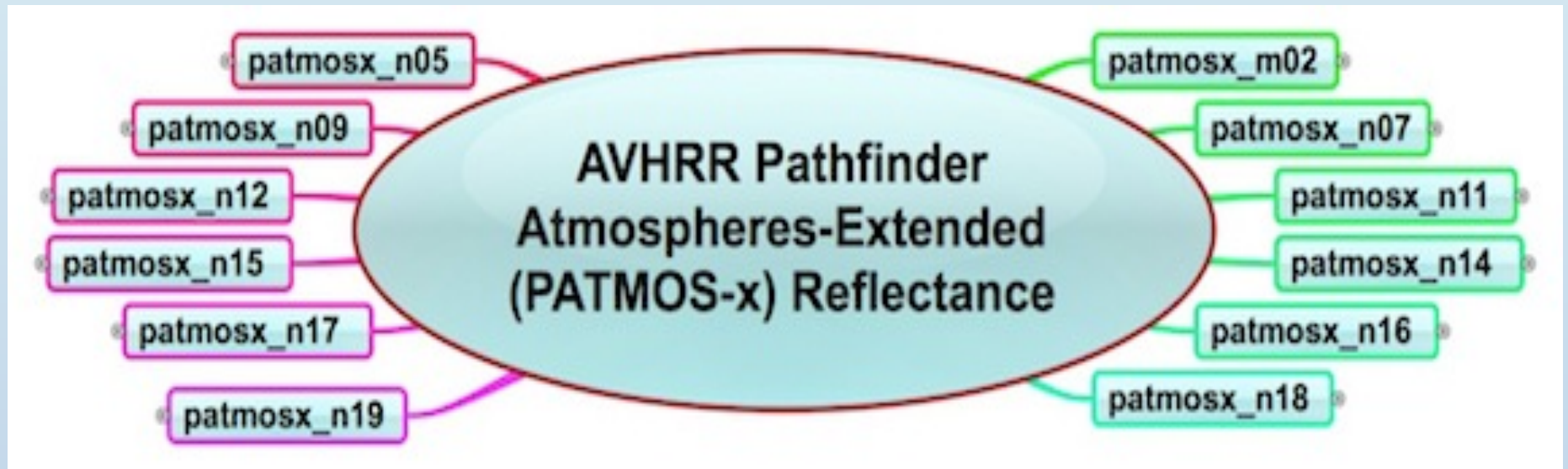
HIRS Ch12 Brightness Temperature



Sea Surface Temperature Pathfinder

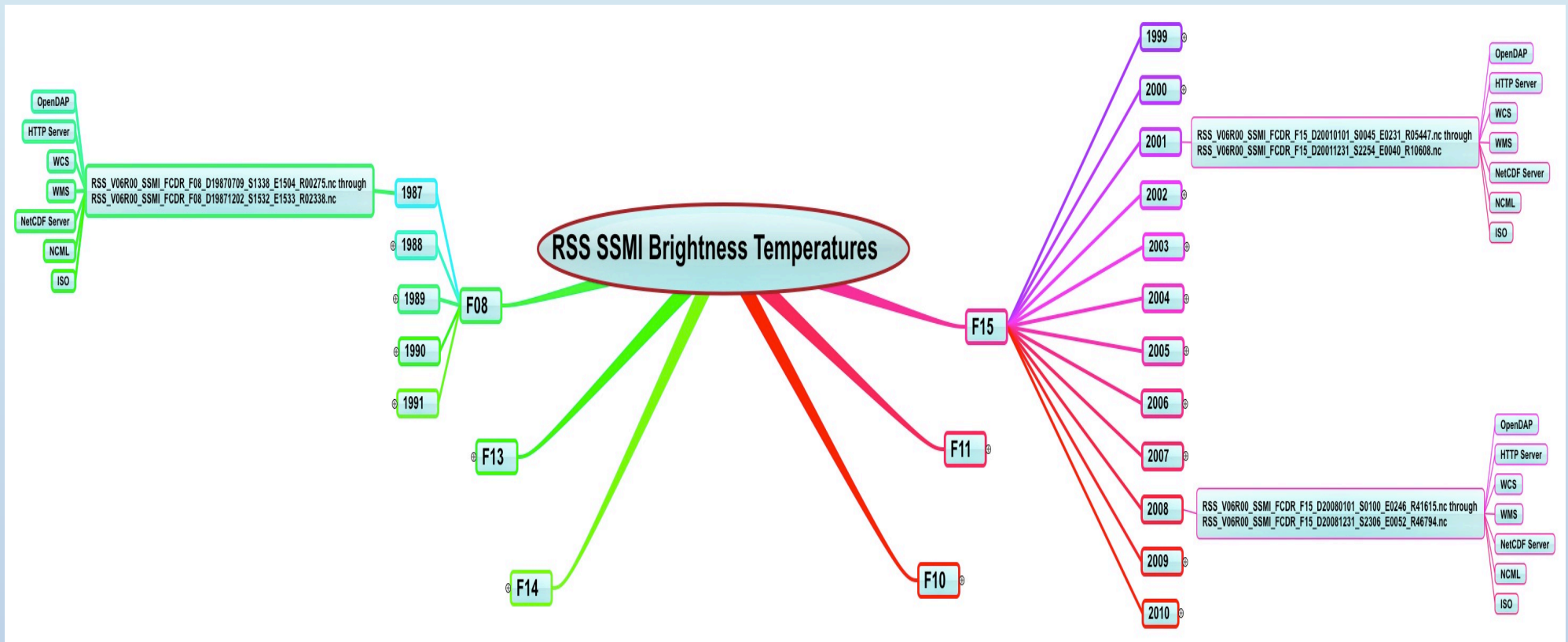


AVHRR Ch1-2-3a Reflectance PATMOS-x

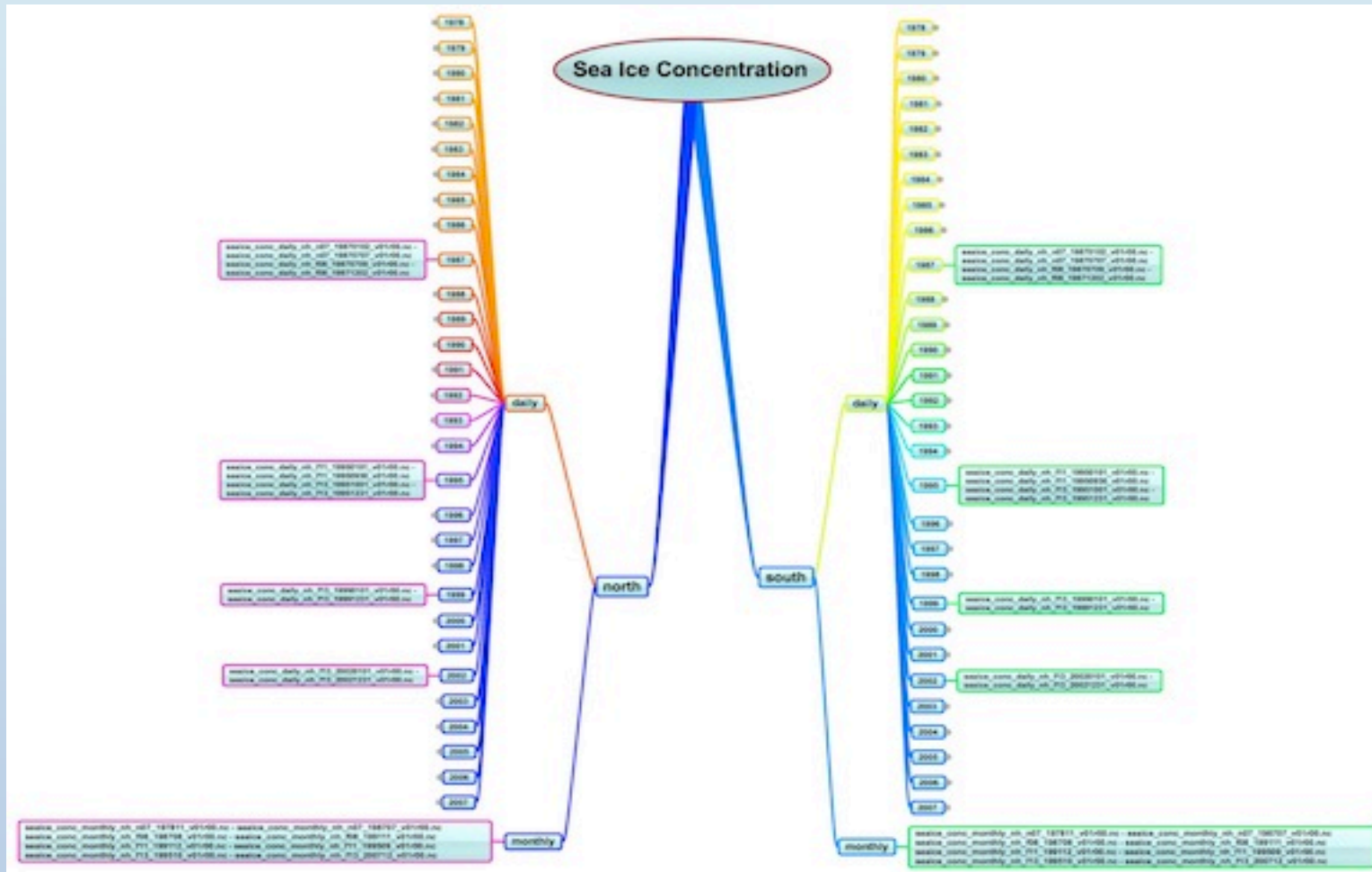


SSMI(S)

Brightness Temperatures - RSS



Sea Ice Concentration



Geostationary IR Channel

Brightness Temperature – GridSat B1

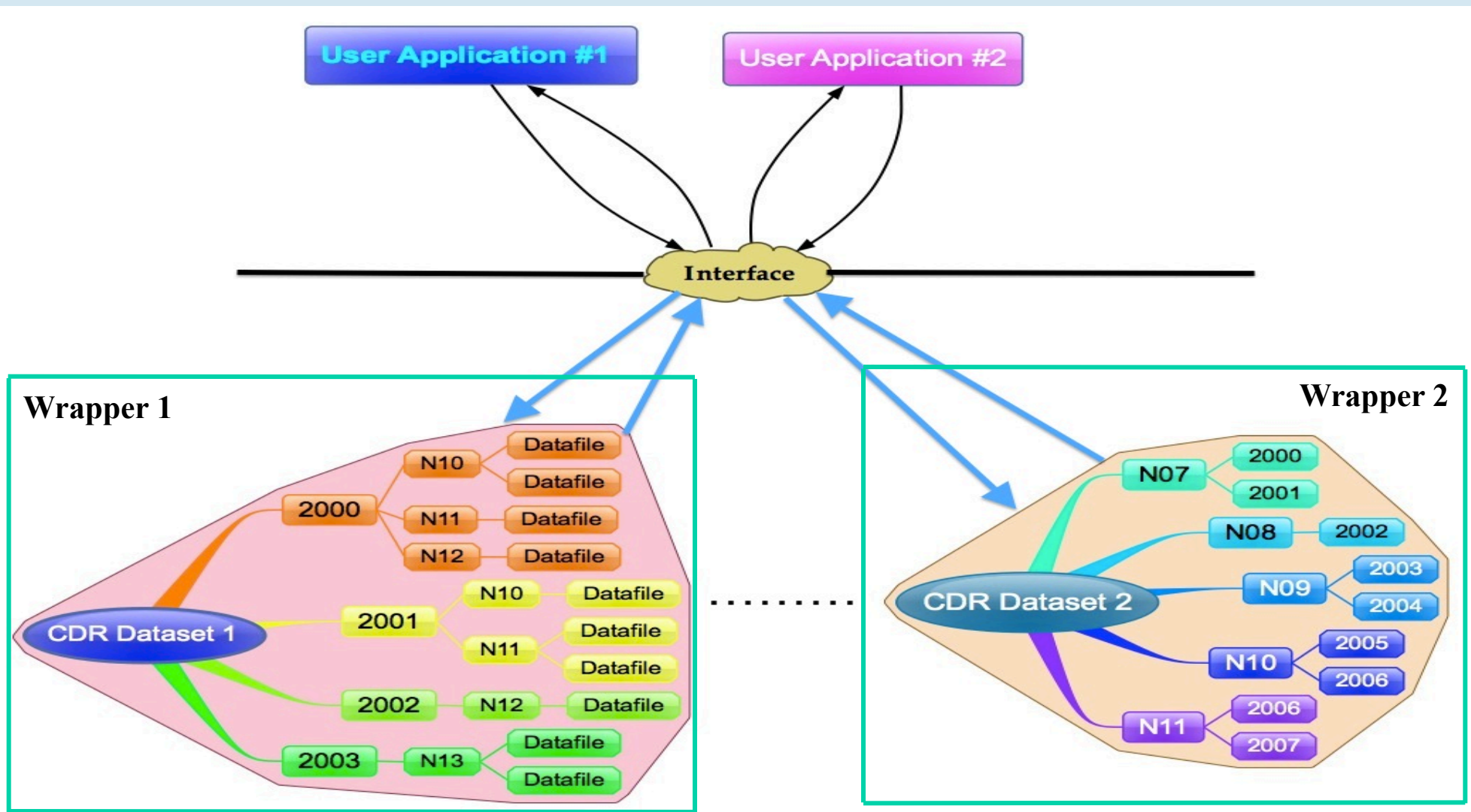
**Gridded Satellite Data from ISCCP B1
(GridSat-B1) IR Window Channel**

gridsat-aggregation-physical.ncml®


Dataset Inconsistencies

- File/Directory Names
 - Dates
 - Satellite name
 - Data Creation Timestamps
- Directory Layouts
 - Dates
 - Sensor Names
 - Satellite name

Next Step: User Application Access



Updated Data Access



NOAA

NATIONAL CLIMATIC DATA CENTER
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION


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News













CDR Program Annual Meeting
at NOAA's NCDC
July 30 - August 1, 2013

Operational Climate Data Records (CDRs)

In addition to embracing the National Research Council CDR definition ([Climate Data Records from Environmental Satellites: Interim Report 2004](#)), NOAA operational CDRs are routinely assessed for quality and systematically generated. The first step in establishing an operational CDR includes public posting of the source code that generated the CDR dataset, the dataset itself, and supporting documentation through a six-phase Research-to-Operations process that is described in the [Developers Guidelines](#).

Once posted to the NCDC webpage, the CDRs are grouped by Fundamental CDRs and Thematic (Atmospheric, Oceanic, and Terrestrial) CDRs. Fundamental CDRs are sensor data (e.g. calibrated radiances, brightness temperatures) that have been improved and quality controlled over time, together with the ancillary data used to calibrate them. Thematic CDRs are geophysical variables derived from the FCDRs, such as sea surface temperature and sea ice concentration, and they are specific to various disciplines. Thematic CDRs are often generated by blending satellite observations, in-situ data, and/or model output.

Atmospheric CDRs	Information	Serving Public	Available Data Access	Source Code	Documentation
Aerosol Optical Thickness	Overview Contact Us		Use Agreement THREDDS FTP		Algorithm Description Data Flow Diagram Maturity Matrix
Mean Layer Temperatures - RSS	Overview Contact Us		Use Agreement THREDDS FTP		Algorithm Description Data Flow Diagram Maturity Matrix
Mean Layer Temperatures - UAH	Overview Contact Us		Use Agreement THREDDS FTP		Algorithm Description Data Flow Diagram Maturity Matrix
Outgoing Longwave Radiation	Overview Contact Us		Use Agreement THREDDS FTP		Algorithm Description Data Flow Diagram Maturity Matrix

Oceanic CDRs	Information	Serving Public	Available Data Access	Source Code	Documentation
Sea Ice Concentration	Overview Contact Us		Use Agreement FTP		Algorithm Description Data Flow Diagram

<http://www.ncdc.noaa.gov/cdr/operationalcdrs.html>

